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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,126	03/01/2002	Manuel Chesneau	CHESNEAU=1	5654
1444	7590	04/20/2004	EXAMINER	
BROWDY AND NEIMARK, P.L.L.C.			LISH, PETER J	
624 NINTH STREET, NW			ART UNIT	
SUITE 300			PAPER NUMBER	
WASHINGTON, DC 20001-5303			1754	

DATE MAILED: 04/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/085,126

Applicant(s)

CHESNEAU ET AL.

Examiner

Peter J Lish

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 24-30 is/are pending in the application.
- 4a) Of the above claim(s) 10-20 and 24-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

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DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I in paper filed 1/26/04 is acknowledged. The traversal is on the ground(s) that a) the improvement resides in the ability of the activated carbon in water purification, b) the assumption that there is no serious burden of search, and c) that there is no evidence that the product can be made by another and materially different process. This is not found persuasive because a) the improved ability or use of the product does not limit the product itself, b) there is a serious burden placed on the examiner, and includes more than the subclasses listed, c) no evidence is required (as evidence would require search), all that is required is the reasonable belief that the product can be made by another and materially different process. Activation may be performed by wet chemical or gas phase processes, which are materially different.

The requirement is still deemed proper and is therefore made FINAL.

Claims 27-29 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Group III, there being no allowable generic or linking claim. Claim 30 is not a true linking claim. Applicant timely traversed the restriction (election) requirement in paper filed 1/26/04.

Response to Arguments

Applicant's arguments filed 1/26/04 with respect to the rejection over Hager et al. in view of JP '888 and van Duijn have been fully considered but they are not persuasive. Applicant's argue that all of the cited references teach a process for the regeneration of activated carbon and

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do not teach attempt to solve the problem of phosphorous. However, the problem that the prior art sets out to solve need not be identical to the problem that applicant's set out to solve. The rationale behind a treatment does not affect the product produced by that treatment. Applicant's additionally argue that there is no motivation to apply the treatment of Hager et al. on the activated carbon known in the art as "Picabiol". The motivation, as disclosed in the previous office action, lies in that Hager teaches a method for the treatment and regeneration of activated carbon that is used for wastewater treatment, while "Picabiol" is an activated carbon used for wastewater treatment. Applicant did not invent "Picabiol", so the specification was not used improperly.

Applicant's arguments with respect to the rejections over Sarjeant and also Putyera taken with Unger have been considered but are moot in view of the new ground(s) of rejection. However, arguments drawn toward process steps are not germane to product claims.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 30 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is indefinite as to what is meant by "in situ in water".

Claim Rejections - 35 USC § 103

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-9 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sarjeant (US 4,148,753) taken with Greinke et al. (US 5,102,855) and further in view of applicant's admission.

Sarjeant teaches a process for the neutralization of carbon, which has been activated by a phosphoric acid process, by contacting the carbon with an aqueous suspension of an additive material comprising a metal oxide or hydroxide, specifically alkaline earth metal hydroxides. In doing so, the metal hydroxides react with the residual phosphoric acid found in the carbon pores and bind the reaction product in situ to the carbon as a substantially water insoluble salt.

Applicants admit that "Picabiol" is an activated carbon manufactured industrially and activated by a phosphoric acid process. It therefore would have been obvious to one of ordinary skill at the time of invention to perform the treatment of Sarjeant on the activated carbon known as "Picabiol" in order to neutralize the residual acid that remains on the activated carbon as a result of the activation process.

Greinke et al. teach a process wherein activated carbon, which has been activated by a phosphoric acid process, is heated at temperatures above 700 °C, preferably above 800 °C, in an oxidizing atmosphere, such as steam, in order to further increase the surface area of the activated carbon above 600 m²/g, preferably above 1300 m²/g. Greinke shows surface areas as high as 1813 m²/g by the process. It would have been obvious to one of ordinary skill at the time of

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invention to perform the treatment of Greinke et al. on the activated carbon known as "Picabiol", neutralized by the process of Sarjeant, in order to obtain a larger surface area.

It is expected that the activated carbon product resulting from the treatment of Sarjeant, followed by the treatment of Greinke et al., on the activated carbon known as "Picabiol" has properties equivalent to that claimed, because no difference is seen between the process taught by Sarjeant and Greinke et al. and the process of the instantly claimed invention.

Regarding the control of the particle size of the activated carbon. It is well known in the art to control the size of activated carbon particles through sieving and milling. The selection of a specific particle size is seen to be the optimization of a known process, which could have been determined through routine experimentation, and is held to be obvious by *In re Boesch*, 205 USPQ 215.

Claims 1-6, 9, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hager et al. (US 4,416,798) in view of JP 51089888A and van Duijn (US 5,198,398) and further in view of applicant's admission.

Hager et al. teach a process for the regeneration of activated carbon, which is used in the treatment of wastewater. The regeneration process comprises steam and/or caustic treatments. Hager teaches that steam regeneration desorbs the compounds from the carbon, but does not explicitly teach the temperature at which steam regeneration is undertaken. Van Duijn teaches that steam regeneration occurs at a temperature between 800 and 1000 °C (column 11, lines 58-60). It therefore would have been obvious to one of ordinary skill at the time of invention to perform the steam regeneration within the temperature range taught by van Duijn.

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Additionally Hager does not explicitly teach the details of the caustic treatment. JP 51089888A teaches that activated carbon may be washed with ammonia in order to dissolve, or desorb, organic substances adsorbed by the carbon, without changing the physical and chemical properties of the carbon. The process is useful for the regeneration of activated carbon.

It would have been obvious to one of ordinary skill to perform both the ammonia regeneration and the steam regeneration in the process of Hager et al. in order to provide a high quality regeneration of the activated carbon adsorbent. Applicants admit that "Picabiol" is an activated carbon that is used for the treatment of wastewater. It therefore would have been obvious to one of ordinary skill at the time of invention to apply the regeneration procedure, as taught above, on the activated carbon known as "Picabiol" in order to provide a high quality regeneration of the activated carbon.

It is expected that the activated carbon product resulting from the combined treatment has properties equivalent to that claimed, because no difference is seen between the process taught by the combined teaching of Hager, van Duijn, and JP 51089888A and the process of the instantly claimed invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J Lish whose telephone number is 571-272-1354. The examiner can normally be reached on 9:00-6:00 Monday through Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



PL

STUART L. HENDRICKSON
PRIMARY EXAMINER